

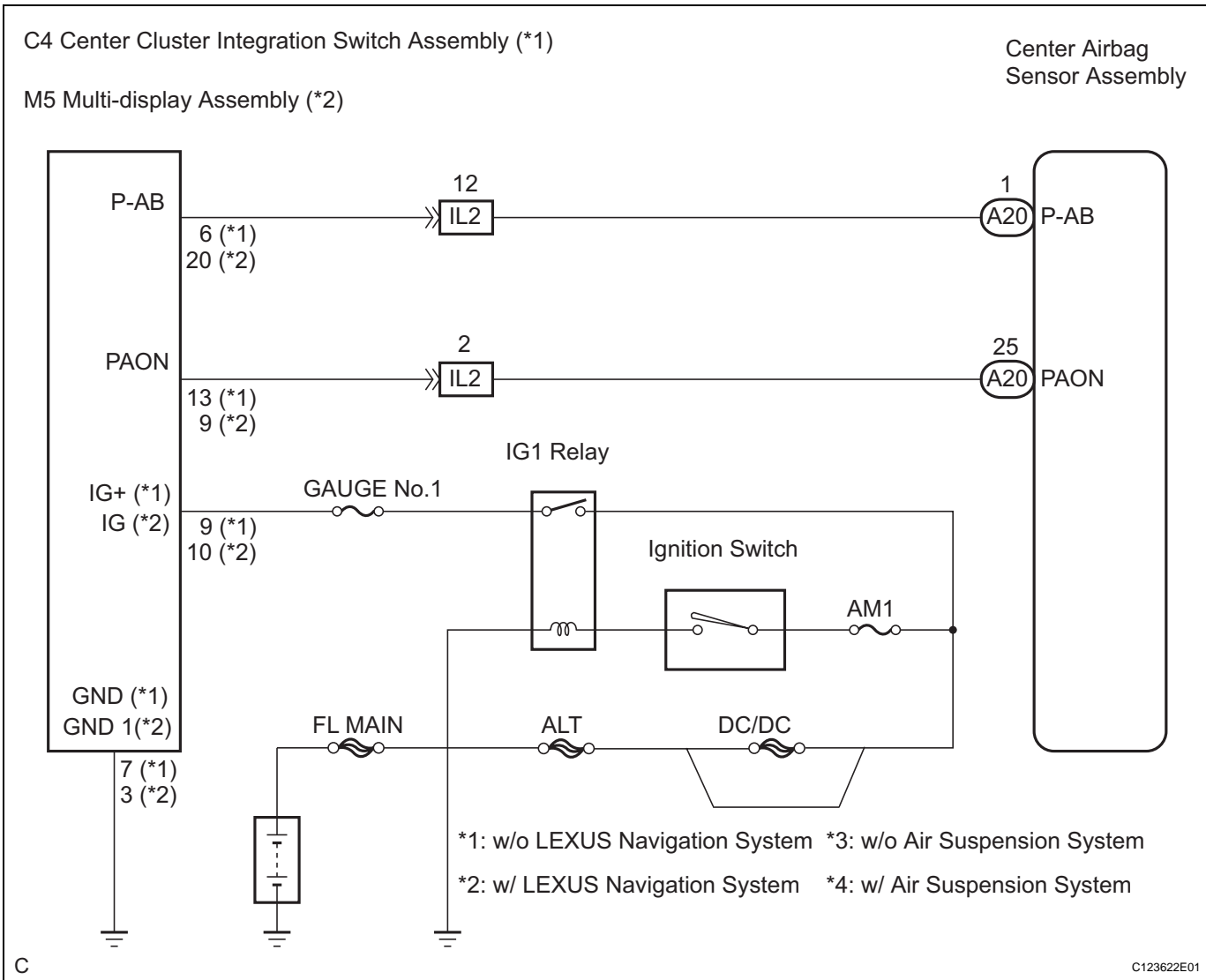
DTC	B1152/28	Passenger Airbag ON/OFF Indicator Circuit Malfunction
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DESCRIPTION

The passenger airbag ON/OFF indicator light circuit consists of the center airbag sensor assembly and passenger airbag ON/OFF indicator. This circuit indicates the operation condition of the front passenger airbag assembly, the front seat airbag assembly RH and front seat belt pretensioner RH. DTC B1152/28 is recorded when a malfunction is detected in the passenger airbag ON/OFF indicator circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1152/28	<ul style="list-style-type: none"> The center airbag sensor assembly receives a line short signal, open signal, short to ground signal or B+ short signal in the passenger airbag ON/OFF indicator circuit for 2 seconds. Passenger airbag ON/OFF indicator malfunction Center airbag sensor assembly malfunction 	<ul style="list-style-type: none"> Center cluster integration switch assembly (w/o LEXUS Navigation system) Multi-display assembly (w/ LEXUS Navigation system) Center airbag sensor assembly Instrument panel wire Instrument panel wire No.2

WIRING DIAGRAM

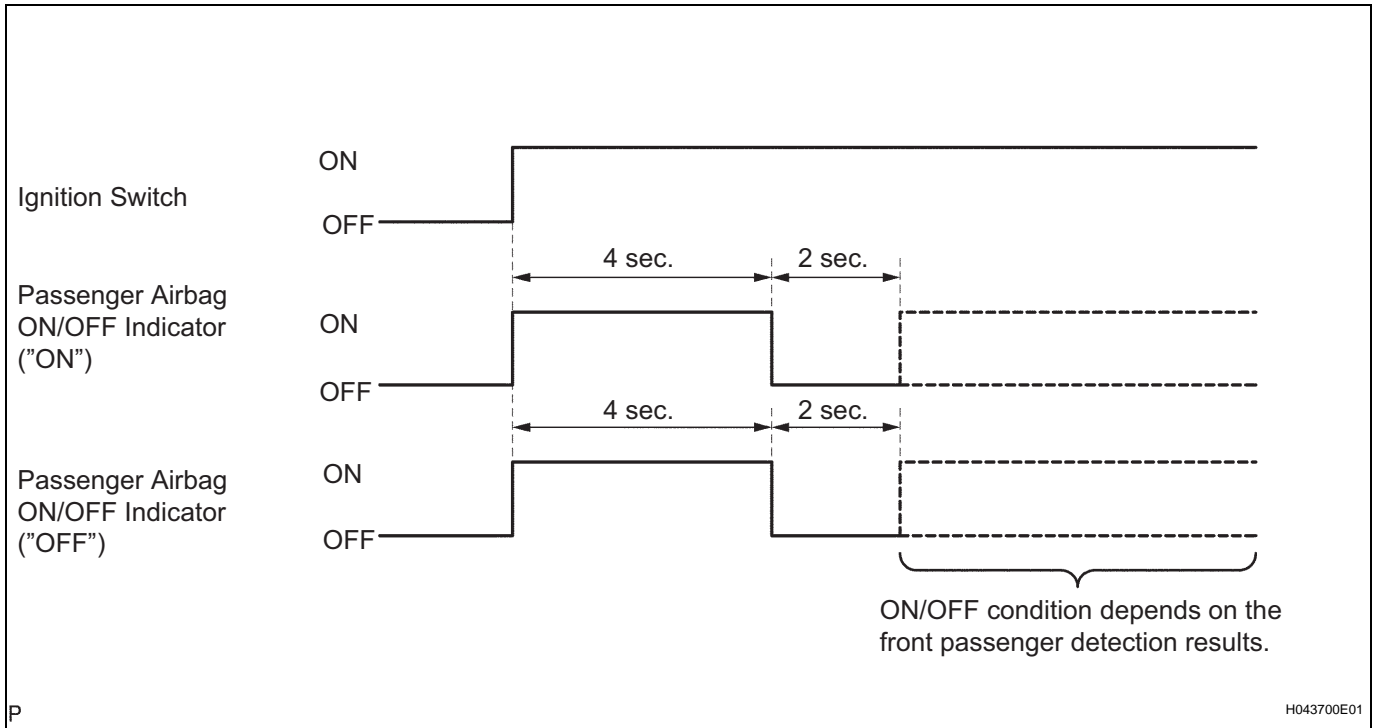


1 CHECK PASSENGER AIRBAG ON/OFF INDICATOR OPERATION

- (a) Turn the ignition switch to the ON position.
- (b) Check the passenger airbag ON/OFF indicator operation.

HINT:

Refer to the normal condition of the passenger airbag ON/OFF indicator (See page RS-25).



Result

ON/OFF Indicator Illumination	Proceed to
Always ON	A
OFF	B

B → **Go to step 14**

A

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) w/o LEXUS Navigation system:
Check that the connectors are properly connected to the center airbag sensor assembly and the center cluster integration switch assembly.
- (d) w/ LEXUS Navigation system:
Check that the connectors are properly connected to the center airbag sensor assembly and the multi-display assembly.

OK:**The connectors are connected.****NG****CONNECT CONNECTORS****OK****3****CHECK CONNECTORS**

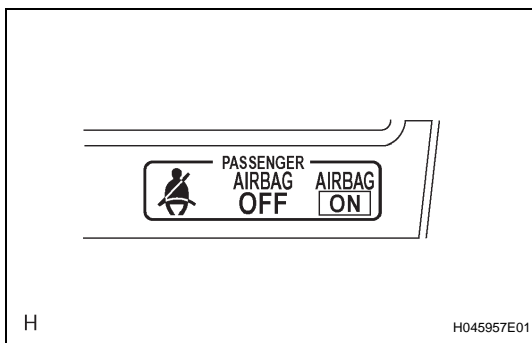
(a) w/o LEXUS Navigation System:

- (1) Disconnect the connectors from the center airbag sensor assembly and the center cluster integration switch assembly.
- (2) Check that the connectors (on the center airbag sensor assembly side and the center cluster integration switch assembly side) are not damaged.

OK:**The connectors are not deformed or damaged.**

(b) w/ LEXUS Navigation System:

- (1) Disconnect the connectors from the center airbag sensor assembly and the multi-display assembly.
- (2) Check that the connectors (on the center airbag sensor assembly side and the multi-display assembly side) are not damaged.

OK:**The connectors are not deformed or damaged.****NG****REPAIR OR REPLACE WIRE HARNESS****OK****4****CHECK PASSENGER AIRBAG ON/OFF INDICATOR**

(a) w/o LEXUS navigation system:

Connect the connector to the cluster integration switch assembly.

(b) w/ LEXUS Navigation system:

Connect the connector to the multi-display assembly.

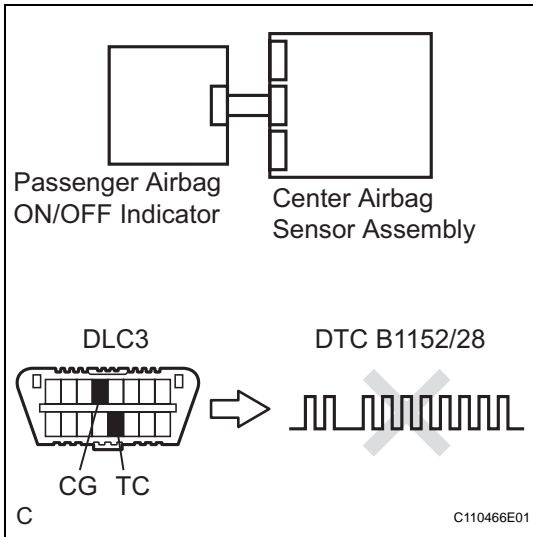
(c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(d) Turn the ignition switch to the ON position.

(e) Check the passenger airbag ON/OFF indicator operation.

OK:**The passenger airbag ON/OFF indicator ("ON" and "OFF") does not come on.****NG****Go to step 6****OK**

5 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connector to the center airbag sensor assembly.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (f) Clear the DTCs stored in memory (See page RS-32).
- (g) Turn the ignition switch to the LOCK position.
- (h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (i) Check the DTCs (See page RS-32).

OK:

DTC B1152/28 is not output.

HINT:

Codes other than code B1152/28 may be output at this time, but they are not related to this check.

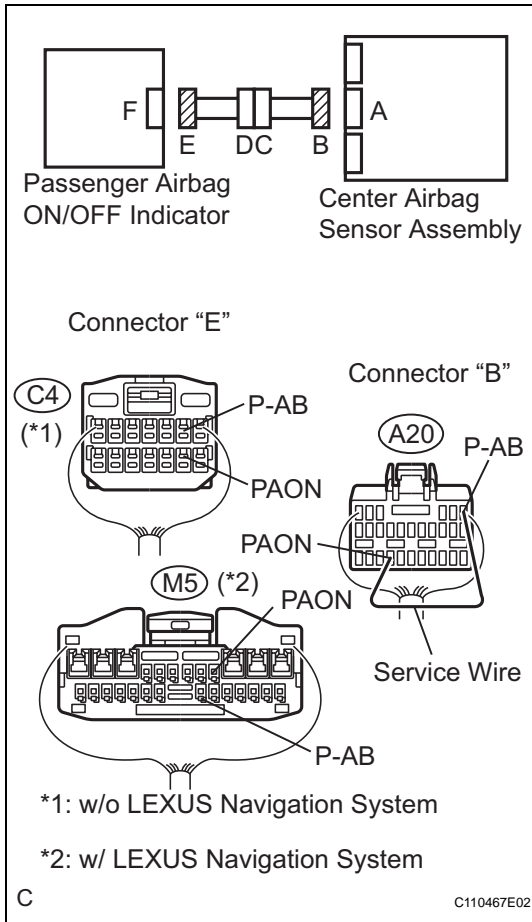
NG **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

USE SIMULATION METHOD TO CHECK

RS

6 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT (OPEN)



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) w/o LEXUS Navigation system:
Disconnect the connector from the center cluster integration switch assembly.
- (d) w/ LEXUS Navigation system:
Disconnect the connector from the multi-display assembly.
- (e) Using a service wire, connect A20-1 (P-AB) and A20-25 (PAON) of connector "B".
HINT:
Do not forcibly insert a service wire into the terminals of the connector when connecting.
- (f) Measure the resistance according to the value(s) in the table below.

**Resistance:
w/o LEXUS Navigation system**

Tester connection	Condition	Specified condition
C4-6 (P-AB) - C4-13 (PAON)	Always	Below 1 Ω

w/ LEXUS Navigation system

Tester connection	Condition	Specified condition
M5-20 (P-AB) - M5-9 (PAON)	Always	Below 1 Ω

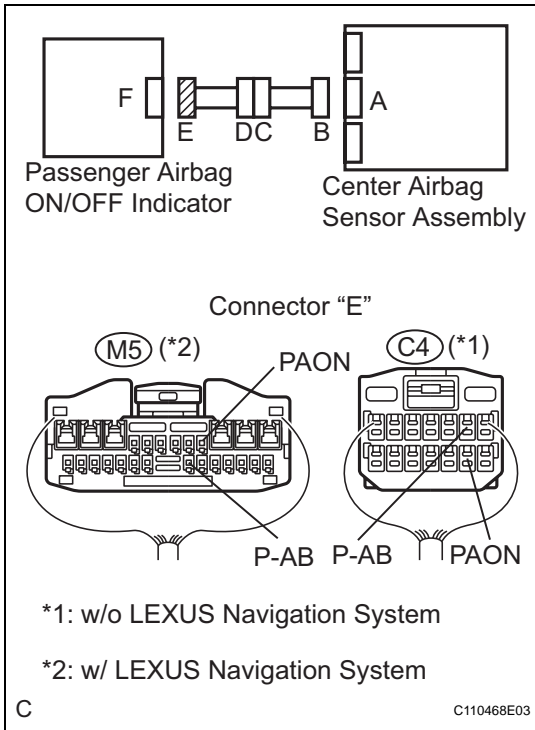
NG

Go to step 10

OK

RS

7 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT (SHORT)



- (a) Disconnect the SST from connector "B".
- (b) Measure the resistance according to the value(s) in the table below.

Resistance:
w/o LEXUS Navigation system

Tester connection	Condition	Specified condition
C4-6 (P-AB) - C4-13 (PAON)	Always	1 MΩ or higher

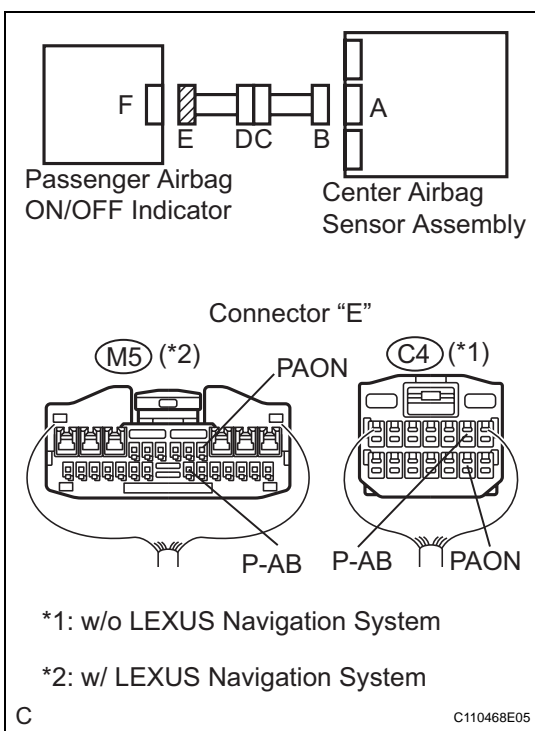
w/ LEXUS Navigation system

Tester connection	Condition	Specified condition
M5-20 (P-AB) - M5-9 (PAON)	Always	1 MΩ or higher

NG → **Go to step 11**

OK

8 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT (SHORT TO GROUND)



- (a) Measure the resistance according to the value(s) in the table below.

Resistance:
w/o LEXUS Navigation system

Tester connection	Condition	Specified condition
C4-6 (P-AB) - Body ground	Always	1 MΩ or higher
C4-13 (PAON) - Body ground	Always	1 MΩ or higher

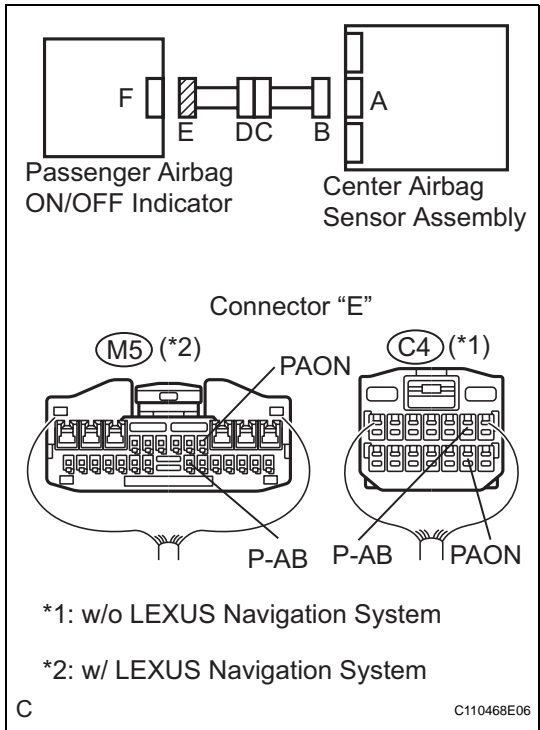
w/ LEXUS Navigation system

Tester connection	Condition	Specified condition
M5-20 (P-AB) - Body ground	Always	1 MΩ or higher
M5-9 (PAON) - Body ground	Always	1 MΩ or higher

NG → **Go to step 12**

OK

9 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch to the ON position.
- (c) Measure the voltage according to the value(s) in the table below.

Voltage:
w/o LEXUS Navigation system

Tester connection	Condition	Specified condition
C4-6 (P-AB) - Body ground	Ignition switch ON	Below 1 V
C4-13 (PAON) - Body ground	Ignition switch ON	Below 1 V

w/ LEXUS Navigation system

Tester connection	Condition	Specified condition
M5-20 (P-AB) - Body ground	Ignition switch ON	Below 1 V
M5-9 (PAON) - Body ground	Ignition switch ON	Below 1 V

OK:A → **REPLACE CENTER CLUSTER INTEGRATION SWITCH ASSEMBLY (W/O LEXUS NAVIGATION SYSTEM)**

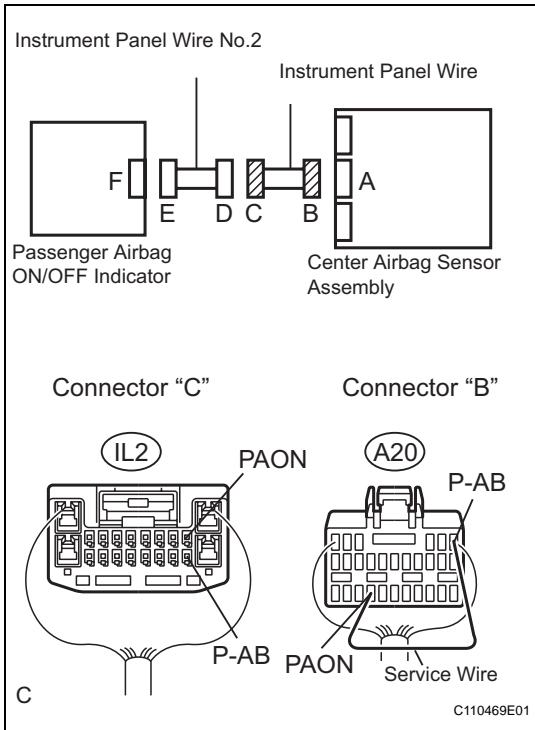
OK:B → **REPLACE MULTI-DISPLAY ASSEMBLY (W/ LEXUS NAVIGATION SYSTEM)**

NG

GO TO STEP 13

RS

10 CHECK INSTRUMENT PANEL WIRE (OPEN)



- (a) Disconnect the instrument panel wire connector from the instrument panel wire No.2.

HINT:

The service wire has already been inserted into connector "B".

- (b) Measure the resistance according to the value(s) in the table below.

Resistance

Tester connection	Condition	Specified condition
IL2-12 (P-AB) - IL2-2 (PAON)	Always	Below 1 Ω

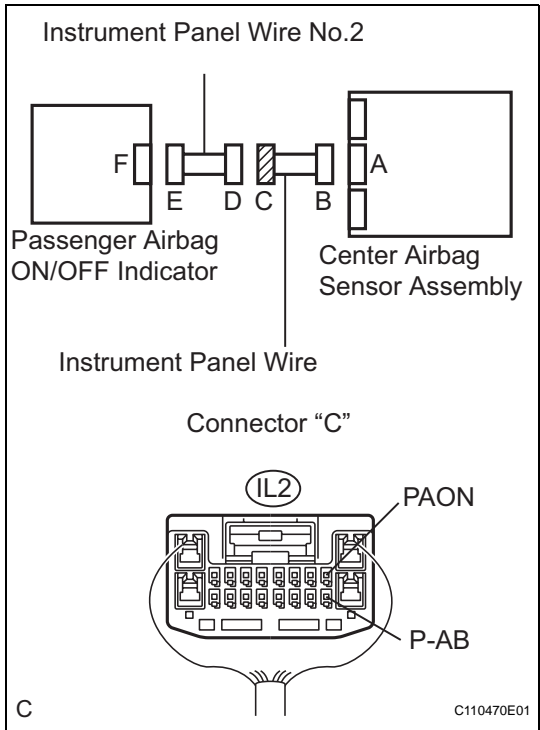
RS

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO.2

11 CHECK INSTRUMENT PANEL WIRE (SHORT)



- (a) Disconnect the instrument panel wire connector from the instrument panel wire No.2.
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

Tester connection	Condition	Specified condition
IL2-12 (P-AB) - IL2-2 (PAON)	Always	1 MΩ or higher

RS

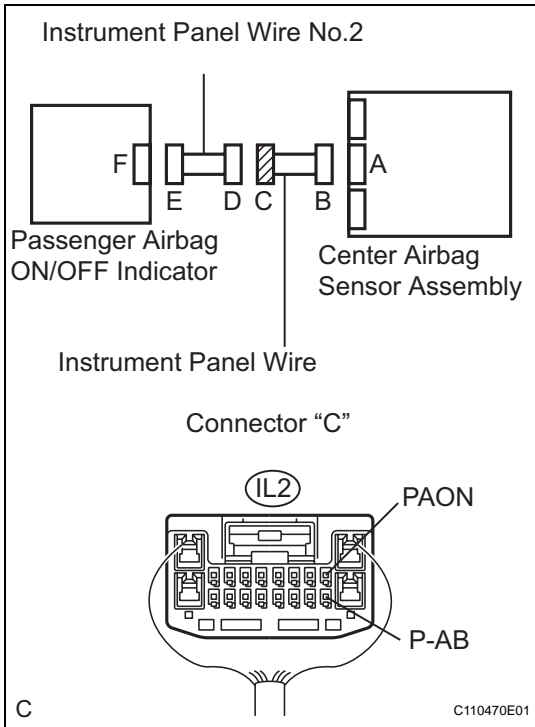
NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO.2

12 CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)



- (a) Disconnect the instrument panel wire connector from the instrument panel wire No.2.
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

Tester connection	Condition	Specified condition
IL2-12 (P-AB) - Body ground	Always	1 MΩ or higher
IL2-2 (PAON) - Body ground	Always	1 MΩ or higher

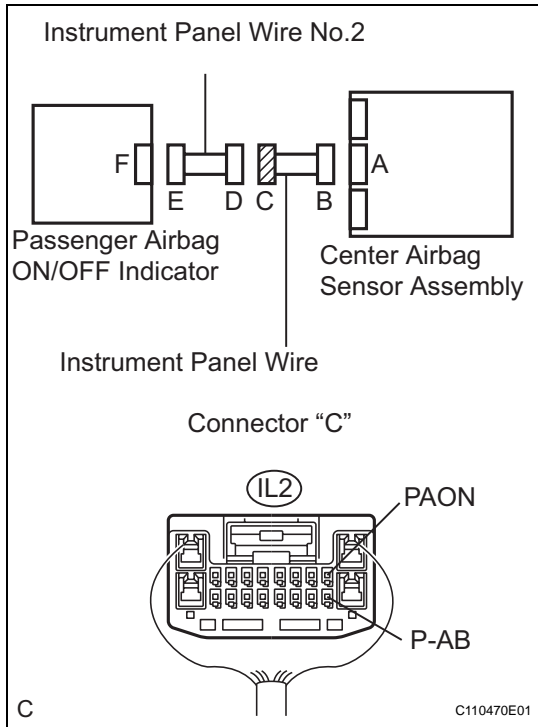
RS

NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO.2

13 CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)

- Turn the ignition switch to the LOCK position.
- Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- Disconnect the instrument panel wire connector from the instrument panel wire No.2.
- Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- Turn the ignition switch to the ON position.
- Measure the voltage according to the value(s) in the table below.

Voltage

Tester connection	Condition	Specified condition
IL2-12 (P-AB) - Body ground	Ignition switch ON	Below 1 V
IL2-2 (PAON) - Body ground	Ignition switch ON	Below 1 V

NG**REPAIR OR REPLACE INSTRUMENT PANEL WIRE****OK****REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO.2****14 CHECK CONNECTION OF CONNECTORS**

- Turn the ignition switch to the LOCK position.
- Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- w/o LEXUS Navigation system:
Check that the connectors are properly connected to the center airbag sensor assembly and the center cluster integration switch assembly.
- w/ LEXUS Navigation system:
Check that the connectors are properly connected to the center airbag sensor assembly and the multi-display assembly.

OK:**The connectors are connected.****NG****CONNECT CONNECTORS****OK**

15 CHECK CONNECTORS

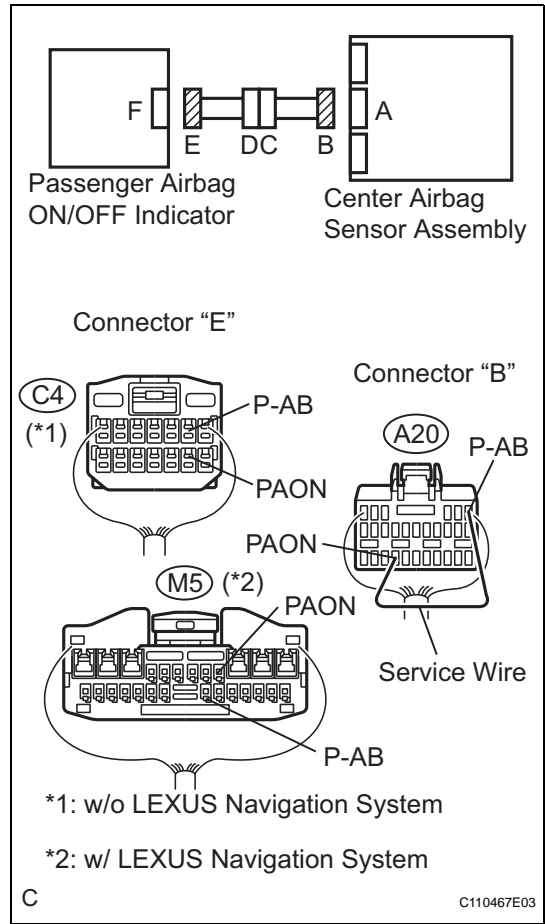
- (a) w/o LEXUS Navigation System:
- (1) Disconnect the connectors from the center airbag sensor assembly and the center cluster integration switch assembly.
 - (2) Check that the connectors (on the center airbag sensor assembly side and the center cluster integration switch assembly side) are not damaged.

OK:**The connectors are not deformed or damaged.**

- (b) w/ LEXUS Navigation System:
- (1) Disconnect the connectors from the center airbag sensor assembly and the multi-display assembly.
 - (2) Check that the connectors (on the center airbag sensor assembly side and the multi-display assembly side) are not damaged.

OK:**The connectors are not deformed or damaged.****NG****REPAIR OR REPLACE WIRE HARNESS****OK****RS**

16 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT (OPEN)



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) w/o LEXUS Navigation system:
Disconnect the connector from the center cluster integration switch assembly.
- (d) w/ LEXUS Navigation system:
Disconnect the connector from the multi-display assembly.
- (e) Using a service wire, connect A20-1 (P-AB) and A20-25 (PAON) of connector "B".
- (f) Measure the resistance according to the value(s) in the table below.

CAUTION:

Do not forcibly insert a service wire into the terminals of the connector when connecting.

Resistance:

w/o LEXUS Navigation system

Tester connection	Condition	Specified condition
C4-6 (P-AB) - C4-13 (PAON)	Always	Below 1 Ω

w/ LEXUS Navigation system

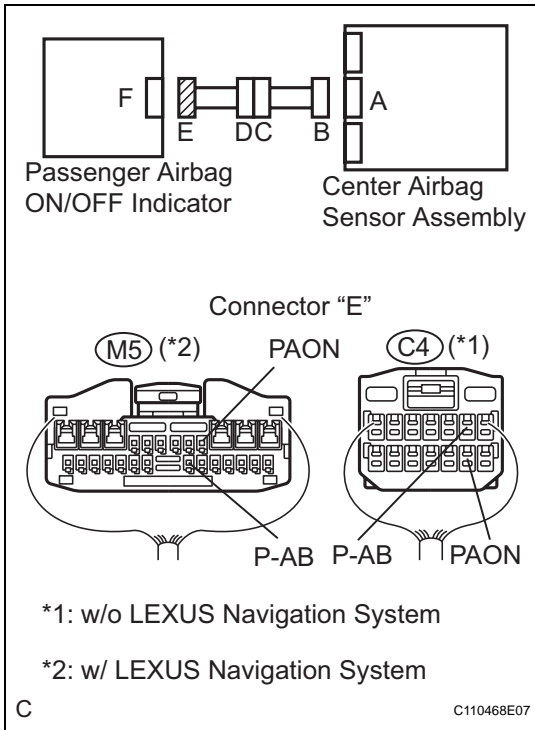
Tester connection	Condition	Specified condition
M5-20 (P-AB) - M5-9 (PAON)	Always	Below 1 Ω

NG → **Go to step 23**

OK

RS

17 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT (SHORT)



- (a) Disconnect the service wire from connector "B".
- (b) Measure the resistance according to the value(s) in the table below.

Resistance:
w/o LEXUS Navigation system

Tester connection	Condition	Specified condition
C4-6 (P-AB) - C4-13 (PAON)	Always	1 MΩ or higher

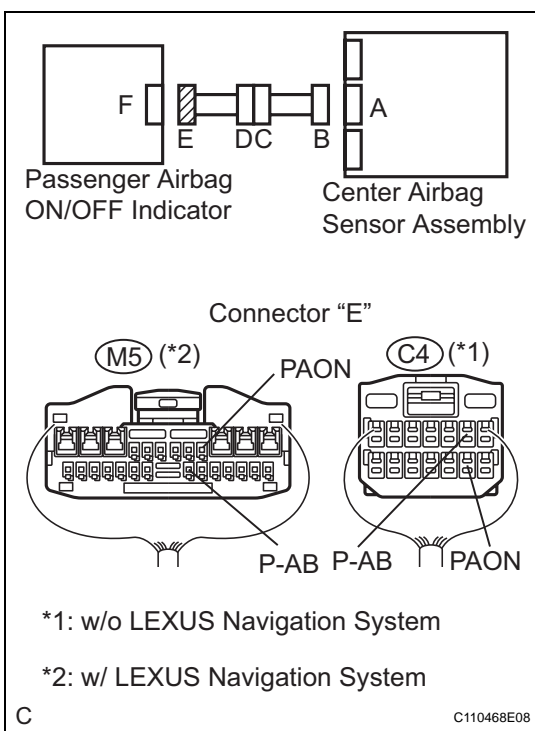
w/ LEXUS Navigation system

Tester connection	Condition	Specified condition
M5-20 (P-AB) - M5-9 (PAON)	Always	1 MΩ or higher

NG → **Go to step 24**

OK

18 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT (SHORT TO GROUND)



- (a) Measure the resistance according to the value(s) in the table below.

Resistance:
w/o LEXUS Navigation system

Tester connection	Condition	Specified condition
C4-6 (P-AB) - Body ground	Always	1 MΩ or higher
C4-13 (PAON) - Body ground	Always	1 MΩ or higher

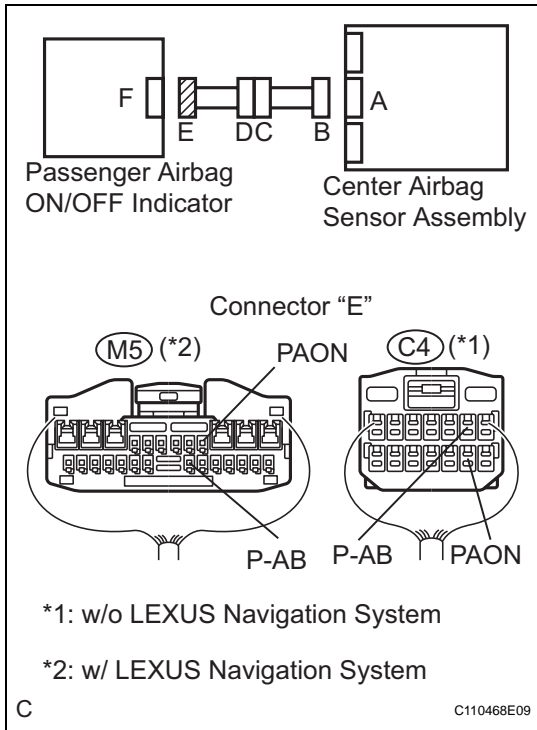
w/ LEXUS Navigation system

Tester connection	Condition	Specified condition
M5-20 (P-AB) - Body ground	Always	1 MΩ or higher
M5-9 (PAON) - Body ground	Always	1 MΩ or higher

NG → **Go to step 25**

OK

19 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch to the ON position.
- (c) Measure the voltage according to the value(s) in the table below.

Voltage:
w/o LEXUS Navigation system

Tester connection	Condition	Specified condition
C4-6 (P-AB) - Body ground	Ignition switch ON	Below 1 V
C4-13 (PAON) - Body ground	Ignition switch ON	Below 1 V

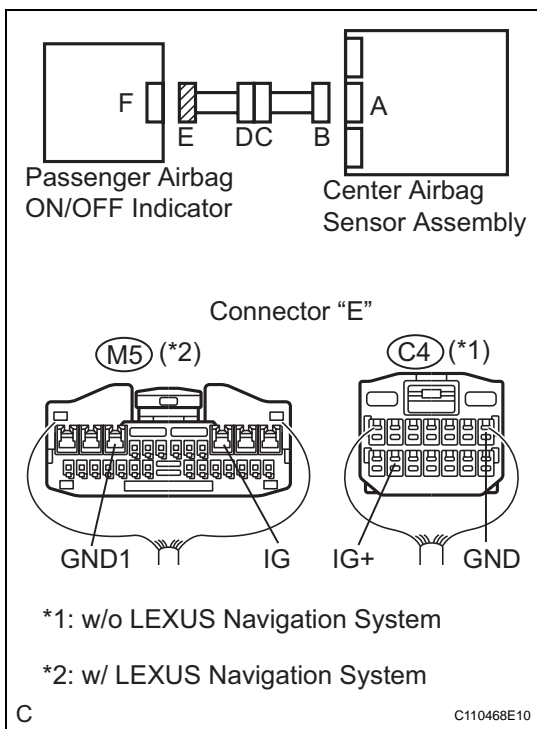
w/ LEXUS Navigation system

Tester connection	Condition	Specified condition
M5-20 (P-AB) - Body ground	Ignition switch ON	Below 1 V
M5-9 (PAON) - Body ground	Ignition switch ON	Below 1 V

NG → **Go to step 26**

OK

20 CHECK WIRE HARNESS (POWER SOURCE)



- (a) Turn the ignition switch to the ON position.
- (b) Measure the voltage and resistance according to the value(s) in the table below.

Voltage and Resistance:
w/o LEXUS Navigation system

Tester connection	Condition	Specified condition
C4-9 (IG+) - Body ground	Ignition switch ON	10 to 14 V
C4-7 (GND) - Body ground	Always	1 MΩ or higher

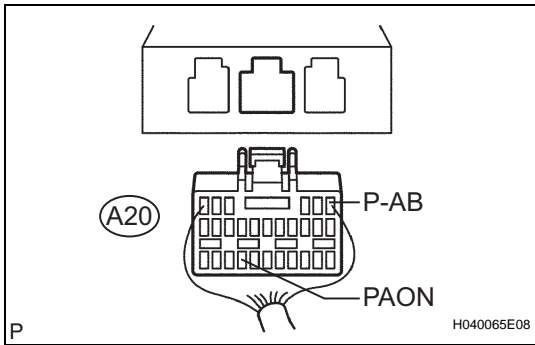
w/ LEXUS Navigation system

Tester connection	Condition	Specified condition
M5-10 (IG) - Body ground	Ignition switch ON	10 to 14 V
M5-3 (GND1) - Body ground	Always	1 MΩ or higher

NG → **REPAIR OR REPLACE POWER SOURCE CIRCUIT**

OK

21 CHECK PASSENGER AIRBAG ON/OFF INDICATOR



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) w/o LEXUS Navigation system:
Connect the connector to the center cluster integration switch assembly.
- (d) w/ LEXUS Navigation system:
Connect the connector to the multi-display assembly.
- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch to the ON position.
- (g) Check the passenger airbag ON/OFF indicator condition.

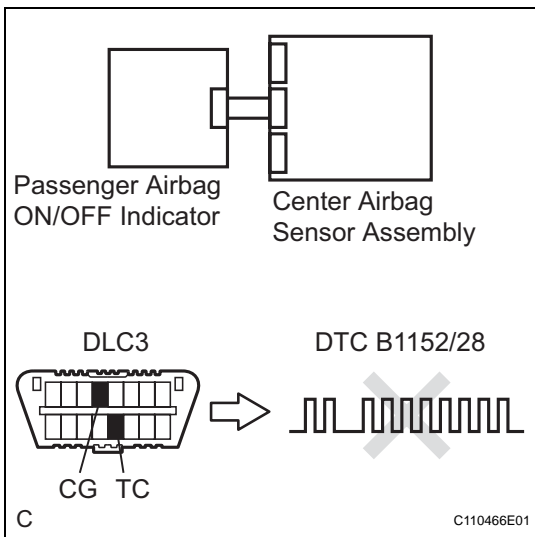
Result

Tester connection	Condition	Passenger airbag ON/OFF indicator condition
A20-25 (PAON) - Body ground	Ignition switch ON	"ON" comes on
A20-1 (P-AB) - Body ground	Ignition switch ON	"OFF" comes on

- NG:A** REPLACE CENTER CLUSTER INTEGRATION SWITCH ASSEMBLY (W/O LEXUS NAVIGATION SYSTEM)
- NG:B** REPLACE MULTI-DISPLAY ASSEMBLY (W/ LEXUS NAVIGATION SYSTEM)

OK

22 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connector to the center airbag sensor assembly.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (f) Clear the DTCs stored in memory (See page RS-32).
- (g) Turn the ignition switch to the LOCK position.
- (h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
- (i) Check the DTCs (See page RS-32).

OK:

DTC B1152/28 is not output.

HINT:

Codes other than code B1152/28 may be output at this time, but they are not related to this check.

NG

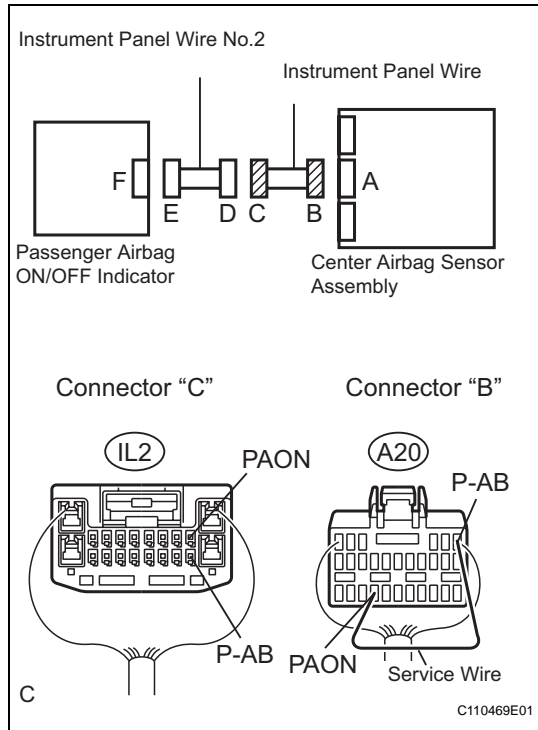
REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

USE SIMULATION METHOD TO CHECK

23 CHECK INSTRUMENT PANEL WIRE (OPEN)

RS



- (a) Disconnect the instrument panel wire connector from the instrument panel wire No.2.

HINT:

The service wire has already been inserted into connector "B".

- (b) Measure the resistance according to the value(s) in the table below.

Resistance

Tester connection	Condition	Specified condition
IL2-12 (P-AB) - IL2-2 (PAON)	Always	Below 1 Ω

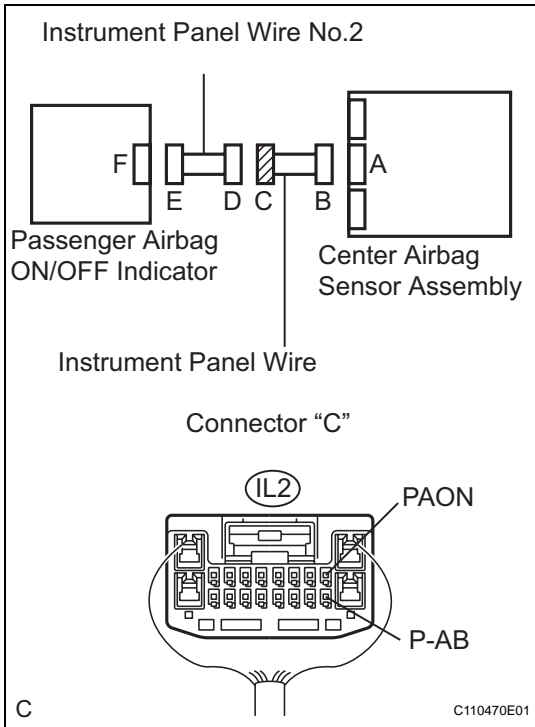
NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO.2

24 CHECK INSTRUMENT PANEL WIRE (SHORT)



- (a) Disconnect the instrument panel wire connector from the instrument panel wire No.2.
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

Tester connection	Condition	Specified condition
IL2-12 (P-AB) - IL2-2 (PAON)	Always	1 MΩ or higher

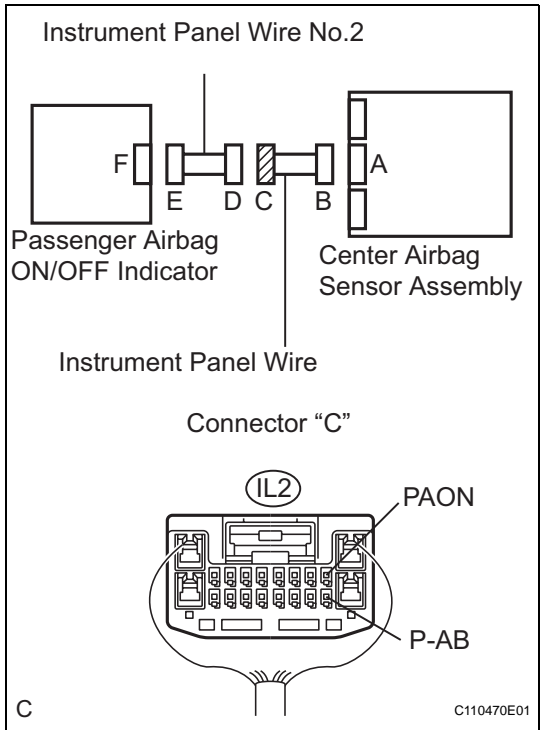
NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO.2

RS

25 CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)



- (a) Disconnect the instrument panel wire connector from the instrument panel wire No.2.
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

Tester connection	Condition	Specified condition
IL2-12 (P-AB) - Body ground	Always	1 MΩ or higher
IL2-2 (PAON) - Body ground	Always	1 MΩ or higher

RS

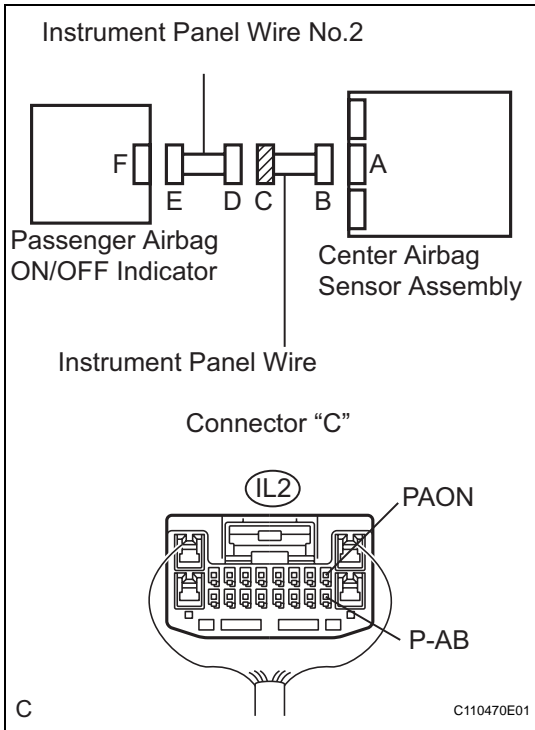
NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO.2

26 CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the instrument panel wire connector from the instrument panel wire No.2.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch to the ON position.
- (f) Measure the voltage according to the value(s) in the table below.

Voltage

Tester connection	Condition	Specified condition
IL2-12 (P-AB) - Body ground	Ignition switch ON	Below 1 V
IL2-2 (PAON) - Body ground	Ignition switch ON	Below 1 V

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO.2

RS